



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,825	06/30/2000	Valery Kuriakin	042390.P9148	2205

7590

03/25/2004

Joseph Lutz
BLAKEY, SOKOLOFF, TAYLOR & ZAFMAN LLP.
7th Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025

EXAMINER

SINGH, DALIP K

ART UNIT	PAPER NUMBER
----------	--------------

2676

DATE MAILED: 03/25/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/607,825

Applicant(s)

KURIAKIN ET AL.

Examiner

Dalip K Singh

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 8-13,20-28,30,34,38 and 42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29,31-33,35-37,39-41,43 and 44 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,14,15,17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2676

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's Request for Continued Examination (RCE) dated December 29, 2003 in response to PTO Office Action dated December 12, 2003. The amendments to claim(s) 1, 5, 14 and 17 have been noted and entered in the record, and applicant's remarks have been carefully considered resulting in the action as set forth herein below.

2. Applicant's arguments filed December 29, 2003 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim(s) 1, 2, 5, 6, 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,907,500 to Nadehara in view of U.S. Patent No. 6,326,984 B1 to Chow et al.

a. Regarding claims 1-2, Nadehara **discloses** storing pixels in a packed format (col. 9, lines 5-20) and motion compensating of packed format (col. 9, lines 29-35). Nadehara **fails to disclose** storing the plurality of color components in the mixed format of planar format and packed format. Chow **discloses** storing plurality of color components in both the planar and packed format (col. 3, lines 25-35; col. 4, lines 24-67; col. 7, lines 1-56). Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to modify the device as taught by Nadehara with

Art Unit: 2676

the feature “storing plurality of color components in the mixed format i.e., planar and packed format” as taught by Chow **because** it improves the efficiency of fetches from the memory.

- b. Regarding claim 5, it is similar in scope to claim 1 above and is rejected under the same rationale.
 - c. Regarding claim 6, it is similar in scope to claim 2 above and is rejected under the same rationale.
 - d. Regarding claim 14, it is similar in scope to claim 1 above and is rejected under the same rationale.
 - e. Regarding claim 15, it is similar in scope to claim 6 above and is rejected under the same rationale.
 - f. Regarding claim 17, it is similar in scope to claim 1 above and is rejected under the same rationale.
5. Claim(s) 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,907,500 to Nadehara in view of U.S. Patent No. 6,326,984 B1 to Chow et al. as applied to claim 1 above, and further in view of U.S. Patent No. 6,078,690 to Yamada et al.
- a. Regarding claim 4, Nadehara-Chow combination **does not disclose** wherein at least one of the plurality of color components of the image are sub-sampled in a dimension of another color component of the image as one of a 4:2:0 space, a 4:2:2 space, and a 4:1:1 space. Yamada et al. **discloses** such sub-sampling (...color difference components...are subsampled by a factor of two...this format is referred to as 4:2:2...col. 5, lines 10-15; col. 6, lines 44-48). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device as taught by Nadehara-Chow et al. with the feature “color difference subsampling” as

Art Unit: 2676

taught by Yamada et al. **because** it provides for conversion of image data without causing degradation (col. 6, lines 17-21).

b. Regarding claim 19, it is similar in scope to claim 4 above and is rejected under the same rationale.

Allowable Subject Matter

6. Claim(s) 29, 31-33, 35-37, 39-41, 43 and 44 allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to disclose a motion vector and a reference frame stored in the mixed format of the packed format and the planar format. Prior art does disclose motion vector and reference frame usage but **does not suggest** the combination where a motion vector and a reference frame is stored in the mixed format as disclosed per independent claim(s) 29, 33, 37 and 41. Dependent claim(s) 31 and 32 dependent from independent claim 29; dependent claim(s) 35 and 36 from independent claim 33; dependent claim(s) 39 and 40 from independent claim 37; dependent claim(s) 43 and 44 from independent claim 41 and similarly include subject matter indicated allowable.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Dalip K. Singh** whose telephone number is **(703) 305-3895**. The examiner can normally be reached on Mon-Thu (8:00AM-6:30PM) Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Matthew Bella**, can be reached at **(703) 308-6829**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

Art Unit: 2676

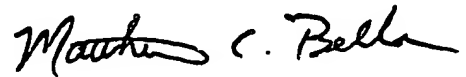
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

dks

March 20, 2004



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600